

# GOOD PRACTICE BRIEF

## IMPROVING CARDIOVASCULAR RISK IN UZBEKISTAN: Implementing a package of essential interventions to prevent and control noncommunicable diseases successfully involved nurses and found missing men

Muborak Sadirova<sup>1</sup>, Dilfuza Aniyozova<sup>2</sup>, Jill Farrington<sup>3</sup>, Elena Tsoyi<sup>4</sup>

### Summary

The Kashkadarya and Ferghana regions in Uzbekistan implemented an integrated model for prevention of noncommunicable diseases (NCDs). The model combined community-level support for behaviour change in NCD risk factors with changes to primary health service delivery to stratify and manage patients with cardiovascular risk (CVR) factors. Implementing clinical protocols led to greater coverage of the target population and improved CVR stratification, detection and control of risk factors, and detection of arterial hypertension and type 2 diabetes mellitus. It also led to better organization of care, increased task-sharing between doctors and nurses, enhanced the role of nurses in primary health care (PHC), and increased the engagement of men in NCD prevention.

### Motivation

In Uzbekistan, the risk of premature death (in people aged 30–69 years) from the four main NCDs is estimated to be around 31%, primarily from cardiovascular diseases. A quarter of adults aged 18–64 years and almost a third of adults aged 40–64 years are at high risk of a heart attack or stroke in the next 10 years. Men are particularly at risk given their tobacco use and harmful use of alcohol. In general, men tend to underutilize health care services, and blood pressure is not well controlled in this population. Although Uzbekistan has been implementing health promotion and disease prevention programmes for many years, challenges remain particularly in reorienting PHC delivery from treatment to prevention and in organizing care delivery to identify and manage patients at high CVR, particularly men. There was insufficient coverage, poor implementation of the WHO “best buys” – evidence-based and cost-effective NCD recommendations – and frequent underutilization of nurses.

### Key Messages

- Expanding the independent role of nurses required a systematic approach including changes to a regulatory framework.
- A system of internal and external supportive supervision is an important element of continuous improvement in quality of care.
- Motivation and the ability to compare team performance outcomes are important aspects in strengthening the commitment of health workers to improve the quality of their work.
- Actively involving patients, together with health workers, in treatment plans can help change patient behaviour to reduce risk factors for cardiovascular disease.
- Intersectoral collaboration to improve health is a key factor in raising public awareness and promoting community-based health programmes.

<sup>1</sup> Faculty member of GP advanced training department, Tashkent Post-graduate institute of Medical education, Tashkent, Uzbekistan

<sup>2</sup> Faculty member of Public health, economy and management of health care department, Tashkent Post-graduate institute of Medical education, Tashkent, Uzbekistan

<sup>3</sup> Coordinator, Noncommunicable Conditions, Division of Noncommunicable diseases (NCDs) and Promoting Health through the Life-course, WHO Regional Office for Europe

<sup>4</sup> NPO on NCD and life-course approach, WHO CO in Uzbekistan, WHO Regional Office for Europe

## NCD prevention in PHC

In September 2015, eight PHC facilities in two regions in Uzbekistan were identified to pilot a new approach using the WHO package of essential NCD (PEN) interventions for PHC together with a system of continuous improvement of quality of health services. The WHO PEN protocols for identifying and managing individuals with high cardiovascular disease risk and, more recently, Protocol 3 on chronic respiratory disease were adapted for use in Uzbekistan.

When introducing the PEN protocols into routine practice, the focus was on building capacity of PHC facilities through team-based training of specialists and updated clinical protocols, and by implementing supervisory support mechanisms to monitor and evaluate team performance and other quality improvements. This required considerable changes to the organizational structure of health care delivery.

- Given the high workload of general practitioners (GPs), teamwork of GPs and nurses was streamlined through clear delineation and delegation of responsibilities, and by expanding the role of nurses.
- The catchment areas for doctors and nurses are local communities (mahallas). Patient registers were used to identify the target group of adults aged 40 years or over and to invite them for CVR assessment; health care workers followed up with patients who did not attend the assessment.
- In waiting rooms in PHC facilities, nurses performed pre-doctor check-ups and asked patients about risk factors; measured height, weight and blood pressure; and calculated body mass index before the patient saw the GP.
- Nurses also used questionnaires to detect risk factors during home visits.
- To facilitate the planning and monitoring of patients' first and follow-up visits, nurses started logbooks to track planned and actual visits in line with each patient's CVR.
- To help track health status, individual patient management plans were created which could be attached to outpatient health records and, if possible, given to patients so they could be more involved in their own care.
- Facilities were transformed into polyclinics where blood and cholesterol tests could be performed free-of-charge to patients with results available within a few hours.
- A software application was developed to assess and manage CVR, facilitate risk stratification, track quality indicators and evaluate results; the application is being integrated into the information system for outpatient care services.
- National and local coordination teams regularly visited health clinics in the pilot regions to provide supportive supervision, and to monitor and evaluate using an approach which included audit of patient records, observations of clinical practice, interviews with staff and patients, and feedback to clinicians/staff and suggestions for improvement.
- Indicators for monitoring and evaluating CVR were included in national guidelines.

**A nurse assesses CVR in patients using PEN tools, Margilan Family Polyclinic #1**



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The changes in PHC are supported by a community health promotion project ("Healthy Life") at the local community level, which is under the leadership of the local government. This project successfully engages other government agencies, women's committees, youth leaders, religious leaders, journalists

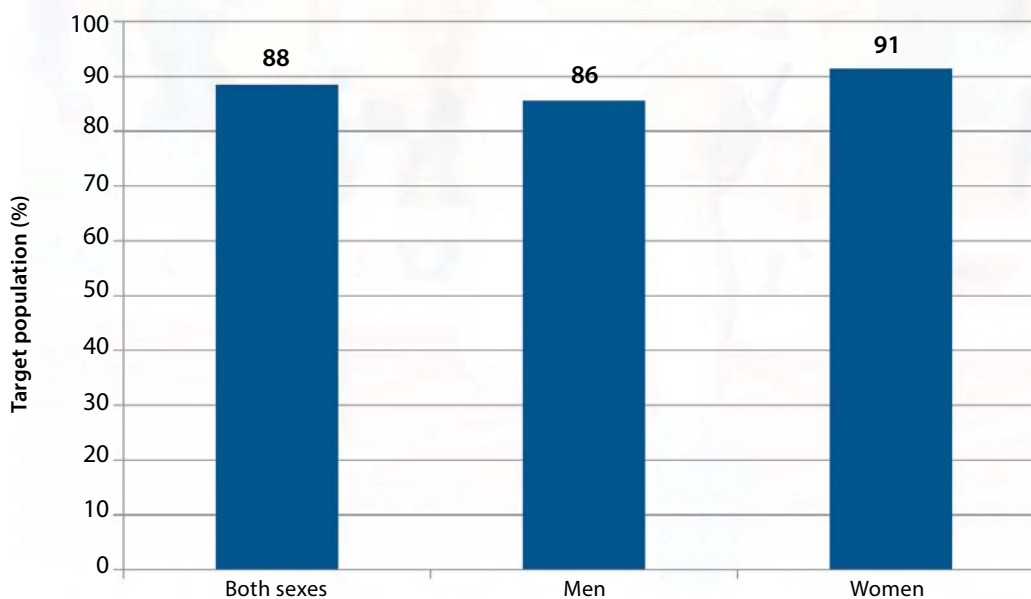
and other key stakeholders to mobilize health promotion initiatives. Examples of work include large-scale information communication campaigns for the general population, health promotion events for young people, screenings for NCD risk factors and initiatives to help people choose a healthy lifestyle.

## Impact

With the introduction of new clinical protocols, preventive care has gained prominence. Health workers have begun to pay more attention to assessing risk using a total CVR approach, and coverage of patients aged 40 years and older has improved.

After one year, the eight pilot facilities performed risk assessments on 32 052 people, with nearly an 80% uptake of cardio-metabolic risk screening among people over the age of 40. Analysis of coverage data by gender in three pilot facilities shows high coverage among men (86%) at nearly the same rate as women (Fig. 1).

Fig. 1. Coverage of CVR assessment in adults aged 40 years and over (target population) in three pilot districts



Source: database of three pilot PHC facilities in Fergana region.

Other results from the pilot project include:

- an approximate 50% increase in the number of patients with newly detected arterial hypertension (from 1416 to 2039 registered cases) and type 2 diabetes (from 175 to 272 registered cases);
- a 65% increase (from 54.2% to 89.6%) in the proportion of patients with arterial hypertension or type 2 diabetes who are prescribed treatment in line with the WHO PEN protocols;
- a 63% increase (from 28.9% to 47.2%) in the proportion of patients aged 40 years or older with type 2 diabetes or arterial hypertension and high blood cholesterol (higher than 8 mmol/l) and/or high CVD risk who are treated with statins;
- improvement in the quality and effectiveness of patient counselling on NCD risk factors and healthy lifestyle behaviours by health professionals;
- an increase in the completeness of clinical examinations by doctors according to protocol;
- increased utilization of health services by the male population at PHC facilities for CVR assessment, which had been a major concern;
- an increase in patient satisfaction since clinicians show more interest in their patients' health;
- an increase in confidence and empowerment among nurses regarding their expanded role; and
- an increase in task sharing between doctors and nurses, and the promotion of team decision-making.

## Lessons learned

- **Expanding the independent role of nurses required a systematic approach including changes to a regulatory framework.** Introducing the new clinical protocols was not easy, and nurses faced barriers when performing their new duties. A regulatory framework regarding PHC workers needed to be revised. The involvement of the chief nurse in the national steering group appears to have been critical. Now nurses are empowered to develop their clinical role; for example, they can establish a working nurse diagnosis such as high blood pressure and provide recommendations to patients based on nursing information. Health care workers were trained on a standard treatment approach, which was supported by peer-to-peer education.
- **A system of internal and external supportive supervision is an important element of continuous improvement in quality of care.** Regular monitoring visits by supervisors from the national, regional and district levels and by internal supervisors who provided constructive feedback resulted in the identification and timely resolution of problems. This practice needs to continue with an emphasis on strengthening self-supervision to resolve problems with using the new protocols in routine practice. This approach will be valuable for scaling up the pilot project to the entire country.
- **Motivation and the ability to compare team performance outcomes are important aspects in strengthening the commitment of health workers to improve the quality of their work.** Several factors contributed to increasing the satisfaction of health workers and improving quality of care. These factors were the dissemination of experience from the pilot facilities, presentation of team outcomes on regional and national levels, community involvement in evaluating the performance of each team and joint work with community leaders to achieve common goals. The motivation of midlevel health personnel is worth noting because they were aware of their contribution and the importance of their role in improving the performance of PHC facilities.
- **Actively involving patients, together with health workers, in treatment plans can help change patient behaviour to reduce risk factors for cardiovascular disease.** Patients who helped to decide how and when they will reduce CVR are most likely to successfully change their behaviour. It is important for health workers to monitor how well the patient is achieving targets and to involve the patient's family members.
- **Intersectoral collaboration to improve health is a key factor in raising public awareness and promoting community-based health programmes.** The outcomes of implementing the "Healthy Life" initiative showed that when the health care sector engages with stakeholders –local authorities, the government sector, local communities, women's committees, youth leaders and the religious community – the likelihood of success increases. This engagement supports the efforts of the health care sector, especially in increasing the number of men attending NCD screening programmes.

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